

PATENT

ATTORNEY DOCKET NO: KCX-736 (18588)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Lindsay, et al.)	Examiner: Paula L. Craig
)	
Serial No: 10/743,259)	Art Unit: 3761
)	
Filed: December 22, 2003)	Deposit Account No: 04-1403
)	
Confirmation No: 4457)	Customer No: 22827
)	
Title: Use of Swirl-Like Adhesive Patterns in the Formation of Absorbent Articles)	
)	

Mailstop Appeal Brief - Patents
Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Post Office Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Honorable Commissioner:

Appellants submit the following brief on appeal in accordance with 37 C.F.R. § 41.37. Applicants respectfully request favorable action in the form of a Notice of Allowance in view of the following:

1. REAL PARTY IN INTEREST

The real party in interest in this matter is the assignee of record, Kimberly-Clark Worldwide, Inc.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellants or the Appellants' legal representative which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

Currently, claims 13, 15-16, 18-20, 22-26, 28-29, 30-33, and 35-37 remain pending in the present application. Claims 15, 18-19, 25, 28, and 31-32 have been withdrawn. Previously, claims 1-12, 14, 17, 21, 27, 30, 34, and 38-43 were canceled. All the pending claims are attached hereto in the Claims Appendix.

All of the examined claims, claims 13, 16, 20, 22-24, 26, 29, 33, and 35-37, including independent claims 13 and 26, stand rejected in the Final Office Action of Oct. 22, 2008.

The rejection of all pending claims is hereby appealed.

4. STATUS OF AMENDMENTS

To the Appellants' knowledge, all amendments have been entered into the record.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 13 is generally directed to an absorbent garment comprising a liner, an outer cover, an absorbent structure, and an adhesive. The absorbent structure is positioned between the liner and the outer cover. See e.g., Fig. 4; pg. 13, lines 9-10 (An absorbent structure 74 (shown in phantom) is positioned or located between the outer cover 72 and the bodyside liner 70); and pg. 15, lines 31-32. The adhesive is positioned between at least two of the liner, the outer cover, and the absorbent structure. See e.g., pg. 6, lines 8-9 and pg. 18, line 29 – pg. 19, line 13. The adhesive is applied at least partly according to a swirl-like pattern. The swirl-like pattern comprises a plurality of loops having a size, such that the size of the loops change as a function of distance. See e.g., pg. Fig. 1 and pg. 7, lines 27-30 (In rows 18 and 22, the adhesive pattern in these rows comprises a first portion pattern 36 connected to a second portion pattern 38. In this embodiment, the first portion 36 comprises a large swirl-like pattern, while the second portion 38 comprises a smaller swirl-like pattern.) The adhesive pattern changes as a function of distance according to adhesive dose in weight per area along the distance. See e.g., pg. 6, lines 28-29. The adhesive dose of the adhesive pattern changes as a function of distance such that the weight per unit area of adhesive applied varies by at least 20% by weight. See e.g., pg. 8, lines 14-25. The adhesive pattern alternates between the swirl-like pattern and a continuous bead. See e.g., Fig. 1 and pg. 7, lines 11-17 (Rows 16 and 24 on substrate 10 illustrate an adhesive pattern that varies as a function of distance. In rows 16 and 24, the continuous adhesive bead alternates between the pattern of a first portion 32 and the pattern of a second portion 34. The first portion pattern 32 comprises a swirl-like

pattern comprised of multiple loops. The pattern of the second portion 34, on the other hand, comprises a linear bead of adhesive.)

Independent claim 26 is generally directed to an absorbent product comprising multiple components. One of the components comprises an outer cover, while another component comprises an absorbent structure. See e.g., Fig. 4; pg. 13, lines 9-10. The outer cover includes an exterior surface and an interior surface. The absorbent structure is located adjacent the interior surface of the outer cover. See e.g., Fig. 4; pg. 13, lines 9-10 (An absorbent structure 74 (shown in phantom) is positioned or located between the outer cover 72 and the bodyside liner 70); and pg. 15, lines 31-32. An adhesive is positioned between at least two components of the absorbent product. See e.g., pg. 6, lines 8-9 and pg. 18, line 29 – pg. 19, line 13. The adhesive is applied at least partly according to a swirl-like pattern comprising a plurality of loops. The size of the loops changes as a function of distance. See e.g., pg. Fig. 1 and pg. 7, lines 27-30 (In rows 18 and 22, the adhesive pattern in these rows comprises a first portion pattern 36 connected to a second portion pattern 38. In this embodiment, the first portion 36 comprises a large swirl-like pattern, while the second portion 38 comprises a smaller swirl-like pattern.) Also, the adhesive pattern changes as a function of distance according to adhesive dose in weight per area along the distance. See e.g., pg. 6, lines 28-29. The adhesive pattern alternates between the swirl-like pattern and a continuous bead. See e.g., Fig. 1 and pg. 7, lines 11-17 (Rows 16 and 24 on substrate 10 illustrate an adhesive pattern that varies as a function of distance. In rows 16 and 24, the continuous adhesive bead alternates between the pattern of a first portion 32 and the pattern of a second portion 34. The first portion pattern 32 comprises a swirl-like

pattern comprised of multiple loops. The pattern of the second portion 34, on the other hand, comprises a linear bead of adhesive.) The weight per unit area of adhesive applied varies by at least 20% by weight. See e.g., pg. 8, lines 14-25.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

In the Final Office Action, claims 13, 16, 20, 22-24, 26, 29, 33, and 35-37 were rejected under 35 U.S.C. § 103 (a) in view of U.S. Publication No. 2003/0173018 of Harris in combination with U.S. Patent No. 6,635,798 of Yoshioka, et al.

The rejection of all pending claims is hereby appealed.

7. ARGUMENT

Appellants respectfully submit that the presently pending claims are patentable over the cited reference.

I. Claims 13, 16, 20, 22-24, 26, 29, 33, and 35-37 are non-obvious over Harris in combination with Yoshioka, et al.

Harris is directed to a method of securing an elastic strand to a flat substrate or sheet of material. A filament of adhesive is dispensed onto the strand in a pattern configured with adhesive masses coupled by thinner filament sections. The strand is bonded to the substrate with at least the adhesive masses. See, Abstract. The continuous filament of adhesive is dispersed in a swirl pattern having crossover points coupled to each other by thinner filament sections. These crossover points form spaced apart masses of adhesive on the elastic strand which are substantially larger in width than the thinner filament sections therebetween. See, e.g., paragraph 12. These

adhesive masses then bond the elastic strand to the sheet of material. In order to dispense the adhesive onto the filaments, an apex or tip 12A of the nozzle 12 is spaced a short distance from the Lycra strand 14. The filament is discharged in a pattern that forms discrete areas or masses of adhesive which may form solid dots 30 of adhesive that may or may not be connected by thinner filament sections. See, e.g., pg. 3, paragraph 33. The dispenser uses pressurized air or other manners of moving the filament of adhesive back and forth in the overlapping swirl pattern to form the masses. Pg. 3, paragraph 34. For example, Fig. 7 illustrates an expanded swirl pattern 110 dispensed onto elastic strands 14 in accordance with the principles of Harris. The swirl pattern 10 has crossover points 112 which define in forming the adhesive matters 112 connected together by thinner filament sections 114. Pg. 4, paragraph 39. This application method allows the crossover points to conglomerate to form more solid adhesive masses 122, as shown in Figs. 8 and 8A.

However, Harris completely fails to teach or disclose the combination of a swirl-like pattern comprising a plurality of loops that change as a function of distance and an adhesive pattern that changes as a function of distance according to the adhesive dose and weight per area along the distance. Furthermore, Harris fails to disclose that the adhesive pattern alternates between the swirl-like pattern and a continuous bead. Harris simply discloses that a plurality of loops can be used to form crossover points that conglomerate to form larger adhesive masses. Thus, the swirls of Harris disappear in the final product, leaving only the masses as shown in Figs. 8, 8A, and 9. In order to somehow overcome the deficiencies of Harris, the Office Action cites to Yoshioka, et al.

Yoshioka, et al. discloses that the adhesive lines L apply to any one of the sheet members of the top sheet, the back sheet, the tissue papers, the barrier sheets, and the target tape. The adhesive lines L are shown bending a repeated number of times in the range of 50-200 per one meter of vertical dimension of the sheet member. Col. 5, ll. 31-39.

A. Even if combined, the cited references fail to teach or suggest all of the limitations of independent claims 13 and 26.

Even if these references are combined as attempted by the Office Action, the references fail to teach or suggest all the claim limitation of independent claims 13 and 26. As stated above, Harris discloses applying the adhesive filament in a swirl pattern 110 onto elastic strands 14. The swirl pattern 110 has crossover points 112 “which define and form adhesive masses.” Pg. 4, paragraph 39, *emphasis added*. Thus, contrary to the statement in the Advisory Action, Harris expressly states that the pattern shown in Fig. 7 “forms adhesive masses” and is not present in the final product. The swirl pattern 110 has crossover points 112 which define the adhesive masses 112 connected together by thinner filament sections 114, as shown in Figs. 8 and 8A. In fact, Harris expressly states that “Figs. 8 and 8A illustrate a pattern 120 dispensed onto strands 12 in which the respective adhesive masses 122 have conglomerated to form more solid masses.” Pg. 4, paragraph 40.

However, Harris completely fails to teach or suggest the combination of a swirl-like pattern comprising a plurality of loops that change as a function of distance and an adhesive pattern that changes as a function of distance according to the adhesive dose and weight per area along the distance. Additionally, Harris fails to disclose that the adhesive pattern alternates between the swirl-like pattern and a continuous bead.

Harris simply discloses that a plurality of loops can be used to form crossover points that conglomerate to form larger adhesive masses. Thus, the swirls of Harris disappear in the final product, leaving only the masses as shown in Figs. 8, 8A, and 9.

Yoshioka, et al. fails to overcome the deficiencies of Harris. Yoshioka, et al. discloses adhesive lines L applied to any one of the sheet members of the absorbent article. The adhesive lines L are shown bending a repeated number of times in the range of 50-200 per one meter of vertical dimension of the sheet member. Col. 5, ll. 31-39. The adhesive lines L can intersect a limited number of times to form cross-over points.

The Office Action attempts to modify Harris using this teaching of Yoshioka, et al. in order to state that it would be obvious to apply the adhesive of Harris in a pattern that is a combination of (1) a swirl-like pattern comprising a plurality of loops that change as a function of distance and (2) an adhesive pattern that changes as a function of distance according to the adhesive dose and weight per area along the distance. To do so would first require keeping the pattern of Harris (i.e., the adhesive masses separated by thinner adhesive filaments) unchanged for a portion of the adhesive pattern. Then, the pattern of Harris would have to be halted and completely substituted for the pattern of Yoshioka, et al. However, no teaching or rational exists to make such a change to the pattern of Harris. Thus, one of ordinary skill in the art having common sense at the time of the invention would not have made such a modification.

In stark contrast, presently pending independent claims 13 and 26 require that the adhesive be applied in a combination of (1) a swirl-like pattern comprising a plurality of loops that change as a function of distance and (2) an adhesive pattern that changes

as a function of distance according to the adhesive dose and weight per area along the distance. Additionally, the adhesive pattern alternates between the (1) swirl-like pattern and (2) a continuous bead (a specific manner of changing the adhesive dose and weight per area along the distance).

Absolutely no teaching or suggest in either reference, taken alone or in combination, exists for using this specific adhesive pattern. Applicants note that in order to establish *prima facie* obviousness, all of the claimed limitations must be taught or suggested in the prior art. See, e.g., MPEP § 2143.03. Applicants also note that even if Harris is interpreted as suggested in the Office Action and contrary to the express teachings of Harris, such that Harris teaches both adhesive masses and swirl patterns, no teaching or suggestion exists to alternate these patterns.

B. No rational exists for one of ordinary skill in the art to alternate both a swirl-like pattern and a continuous bead pattern.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Furthermore, “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’... [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that

a person of ordinary skill in the art would employ." KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ2d 1385, 1396 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)). Accordingly, even if all elements of a claim are disclosed in various prior art references, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill would have been prompted to modify the teachings of the references to arrive at the claimed invention. See e.g., *In re Regel*, 188 U.S.P.Q. 132 (C.C.P.A. 1975).

In rejecting independent claims 13 and 26, the Office Action apparently takes the position that it would be obvious to use both the patterns from both these references in an alternating pattern. However, both references teach their respective patterns to achieve a particular purpose. Harris teaches that the adhesive masses separated by the thinner filaments are dispensed onto an elastic strand. Then, the elastic strand having the adhesive applied is attached to a flat sheet. The areas of increased adhesive mass adhere the elastic strand to the sheet. Pg. 1, paragraph 10 – pg. 2, paragraph 11.

Thus, Harris has achieved its sole purpose: adhering the elastic strand to the sheet. Thus, no rational exists for one of ordinary skill in the art to somehow modify the pattern used by Harris, after all, this pattern has already addressed the problem and obtained a satisfactory solution. Plainly, the Examiner's only incentive or motivation for so modifying Harris in the manner suggested in the Final Office Action results from using Appellant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art, which is improper under 35 U.S.C. § 103. The U.S. Supreme Court recently reaffirmed that "[a] factfinder should be aware, of course, of the

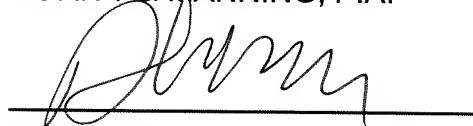
distortion caused by hindsight bias and must be cautious of argument reliant upon ex post reasoning.” KSR Int’l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ2d at 1397. See also, Graham v. John Deere Co., 383 U.S. at 36, 148 USPQ at 474.

C. One of ordinary skill in the art would recognize that the attempted modification of the cited references is impossible.

Harris is directed to applying an adhesive filament onto an elastic strand. Then, the elastic strand (along with the adhesive applied to it) is adhered to the sheet material. When applying the adhesive filament to the elastic strand, the swirls of adhesive become adhesive masses. This is due to the close proximity of the loop to the crossover point that is required by the thin nature of the elastic strand. Thus, applying the adhesive filament in a swirl-like pattern to the elastic strand will necessarily result in the conglomerated mass of adhesive on the elastic strand. As such, the adhesive filament could not be applied to the elastic strand in a combination of (1) a swirl-like pattern comprising a plurality of loops that change as a function of distance and (2) an adhesive pattern that changes as a function of distance according to the adhesive dose and weight per area along the distance. The swirl-like pattern comprising a plurality of loops that change as a function of distance would not, and could not, be incorporated onto the elastic strands of Harris.

In conclusion, it is respectfully submitted that the claims are patentably distinct over the prior art of record and that the present application is in complete condition for allowance. As such, Appellants respectfully request issuance of the patent.

Respectfully submitted,
DORITY & MANNING, P.A.



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8. **CLAIMS APPENDIX:**

13. An absorbent garment comprising:

a liner;

an outer cover;

an absorbent structure positioned between the liner and the outer cover;

and

an adhesive positioned between at least two of the liner, the outer cover and the absorbent structure, the adhesive being applied at least partly according to a swirl-like pattern, wherein the swirl-like pattern comprises a plurality of loops having a size, the size of the loops changing as a function of distance, the adhesive pattern changing as a function of distance according to adhesive dose in weight per area along said distance, wherein the adhesive dose of the adhesive pattern changes as a function of distance, wherein the adhesive pattern alternates between the swirl-like pattern and a continuous bead, and wherein the weight per unit area of adhesive applied varies by at least 20% by weight.

16. An absorbent garment as defined in claim 13, wherein the adhesive is applied in an amount ranging from about 1 gsm to about 100 gsm.

20. An absorbent garment as defined in claim 13, wherein the garment comprises a diaper, an adult incontinence product, or a swim garment.

22. An absorbent garment as defined in claim 13, wherein the adhesive dose of the adhesive pattern changes as a function of distance, and wherein the weight per unit area of adhesive applied varies by at least 50% by weight.

23. An absorbent garment as defined in claim 13, wherein the adhesive dose of the adhesive pattern changes as a function of distance, and wherein the weight per unit area of adhesive applied varies by at least 90% by weight.

24. An absorbent garment as defined in claim 13, wherein the continuous bead includes a zigzag pattern, a sawtooth pattern, a scalloped pattern, or a sinewave pattern.

26. An absorbent product comprising multiple components, one of the components comprising an outer cover, while another component comprising an absorbent structure, the outer cover including an exterior surface and an interior surface, the absorbent structure being located adjacent the interior surface of the outer cover; and

an adhesive positioned between at least two components of the absorbent product, the adhesive being applied at least partly according to a swirl-like pattern, wherein the swirl-like pattern comprises a plurality of loops having a size, the size of the loops changing as a function of distance, the adhesive pattern changing as a function of distance according to adhesive dose in weight per area along the distance, wherein the adhesive dose of the adhesive pattern changes as a function of distance, wherein the adhesive pattern alternates between the swirl-like pattern and a continuous bead, and wherein the weight per unit area of adhesive applied varies by at least 20% by weight.

29. An absorbent product as defined in claim 26, wherein the adhesive is applied in an amount ranging from about 1 gsm to about 50 gsm.

33. An absorbent product as defined in claim 26, wherein the product comprises a diaper, an adult incontinence product, or a swim garment.

35. An absorbent product as defined in claim 26, wherein the adhesive dose of the adhesive pattern changes as a function of distance, and wherein the weight per Rejected area of adhesive applied varies by at least 50% by weight.

36. An absorbent product as defined in claim 26, wherein the adhesive dose of the adhesive pattern changes as a function of distance, and wherein the weight per unit area of adhesive applied varies by at least 90% by weight.

37. An absorbent product as defined in claim 26, wherein the continuous bead includes a zigzag pattern, a sawtooth pattern, a scalloped pattern, or a sinewave pattern.

9. EVIDENCE APPENDIX

None

10. RELATED PROCEEDINGS APPENDIX

None